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will be established on a case-by-case basis.

[42 FR 2476, Jan. 11, 1977; 43 FR 1071, Jan. 6, 1978, as amended at 59 FR 26572, May 20, 1994; 59 FR 52652, Oct. 18, 1994]

§ 227.7 Limits established for specific wastes or waste constituents.

Materials containing the following constituents must meet the additional limitations specified in this section to be deemed acceptable for ocean dumping:

- (a) Liquid waste constituents immiscible with or slightly soluble in seawater, such as benzene, xylene, carbon disulfide and toluene, may be dumped only when they are present in the waste in concentrations below their solubility limits in seawater. This provision does not apply to materials which may interact with ocean water to form insoluble materials;
- (b) Radioactive materials, other than those prohibited by §227.5, must be contained in accordance with the provisions of §227.11 to prevent their direct dispersion or dilution in ocean waters;
- (c) Wastes containing living organisms may not be dumped if the organisms present would endanger human health or that of domestic animals, fish, shellfish and wildlife by:
- (1) Extending the range of biological pests, viruses, pathogenic microorganisms or other agents capable of infesting, infecting or extensively and permanently altering the normal populations of organisms;
 - (2) Degrading uninfected areas; or
- (3) Introducing viable species not indigenous to an area.
- (d) In the dumping of wastes of highly acidic or alkaline nature into the ocean, consideration shall be given to:
- (1) The effects of any change in acidity or alkalinity of the water at the disposal site; and
- (2) The potential for synergistic effects or for the formation of toxic compounds at or near the disposal site. Allowance may be made in the permit conditions for the capability of ocean waters to neutralize acid or alkaline wastes; provided, however, that dumping conditions must be such that the average total alkalinity or total acidity of the ocean water after allowance

for initial mixing, as defined in §227.29, may be changed, based on stoichiometric calculations, by no more than 10 percent during all dumping operations at a site to neutralize acid or alkaline wastes.

(e) Wastes containing biodegradable constituents, or constituents which consume oxygen in any fashion, may be dumped in the ocean only under conditions in which the dissolved oxygen after allowance for initial mixing, as defined in §227.29, will not be depressed by more than 25 percent below the normally anticipated ambient conditions in the disposal area at the time of dumping.

§ 227.8 Limitations on the disposal rates of toxic wastes.

No wastes will be deemed acceptable for ocean dumping unless such wastes can be dumped so as not to exceed the limiting permissible concentration as defined in §227.27; *Provided,* That this §227.8 does not apply to those wastes for which specific criteria are established in §227.11 or §227.12. Total quantities of wastes dumped at a site may be limited as described in §228.8.

§ 227.9 Limitations on quantities of waste materials.

Substances which may damage the ocean environment due to the quantities in which they are dumped, or which may seriously reduce amenities, may be dumped only when the quantities to be dumped at a single time and place are controlled to prevent long-term damage to the environment or to amenities.

§ 227.10 Hazards to fishing, navigation, shorelines or beaches.

- (a) Wastes which may present a serious obstacle to fishing or navigation may be dumped only at disposal sites and under conditions which will insure no unacceptable interference with fishing or navigation.
- (b) Wastes which may present a hazard to shorelines or beaches may be dumped only at sites and under conditions which will insure no unacceptable danger to shorelines or beaches.